



Capital Improvement Program FY2011 thru FY2015 Project Request Form

Project Title: OVSIZING & EXTENSIONS (910161-48634)
Project Priority: Priority 2
Project Code: proj200 **Project Type:** NEW
Department: 2011 **Status:** Active

Start Date (FYE): 1999
Completion Date (FYE): 2015

Description:

This is a progressive water system planning tool for making funds available to provide water into areas not yet receiving that service.

Explanation:

There are three means by which these funds are distributed:
 1) Annual review of applications based upon priority types.
 2) Interdepartmental or city council requests.
 3) The Director's option to enlarge or extend a watermain within a developer's project; beyond the project's documented needs.

Funds are not shown beyond the five year duration of the CIP plan.

Justifications:

- ☐ Mandated
- ☐ Remove hazards
- ☐ Maintains service
- ☐ Increase efficiency
- ☐ Increase revenues
- ☐ Improves service
- ☐ New service
- ☐ Convenience
- ☐ Other

Alternative:

No city participation.

Expenditures:	Prior	2011	2012	2013	2014	2015	Future	Total
Planning								
Land								
Construction	\$825,700	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000		\$950,700
Equipment								
Other Expenses								
Total	\$825,700	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000		\$950,700
Funding Sources:	Prior	2011	2012	2013	2014	2015	Future	Total
General Revenue								
Enterprise Revenue	\$825,700	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000		\$950,700
Bond Proceeds								
Grants								
Capital Project Fund								
Other Revenue								
Total	\$825,700	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000		\$950,700
Operating Impacts:	Prior	2011	2012	2013	2014	2015	Future	Total
Personnel								
Operating								
Capital								
Offsets								
Total								



Capital Improvement Program FY2011 thru FY2015 Project Request Form

Project Title: SMITHLAND ROAD AREA (910161-48633)

Project Priority: Priority 2

Project Code: proj201

Project Type: NEW

Department: 2011

Status: Active

Start Date (FYE): 1999

Completion Date (FYE): 2020

Description:

Target of service into developed and undeveloped land parcels of Smithland Road. Itemization of utility installation has been made from Page 19 of the Engineering Feasibility Study for this area by Blackwell Engineering as dated November, 2000.

Explanation:

Completed projects at July 1, 2008 (\$1,117,545) * 286-0102 Keezletown Rd to NHC \$184,490
 * 333-0203 Railroad to NHC \$270,198 * 339-0203 Railroad to I-81 N \$245,954
 * 378-0506 Linda Land Extended \$ 2,734 * 350-0304 I81 to Old Furnace Rd \$414,169
 Future Projects * I-81 to Old Furnace Rd \$340,000
 * Water Pump Station \$200,000 * Belts Rd to Keezletown Rd \$600,000
 * Water Storage Tank \$1,200,000 \$2,340,000... 3,920,300 (5,10)= \$3,130,000

Justifications:

- ☐ Mandated
- ☒ Remove hazards
- ☐ Maintains service
- ☐ Increase efficiency
- ☒ Increase revenues
- ☐ Improves service
- ☒ New service
- ☐ Convenience
- ☐ Other

Alternative:

1. Bond fund at a faster installation schedule.
2. Area to remain without water service.

Expenditures:	Prior	2011	2012	2013	2014	2015	Future	Total
Planning								
Land								
Construction	\$1,494,647	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$3,005,150	\$4,624,797
Equipment								
Other Expenses								
Total	\$1,494,647	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$3,005,150	\$4,624,797
Funding Sources:	Prior	2011	2012	2013	2014	2015	Future	Total
General Revenue								
Enterprise Revenue	\$1,494,647	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$3,005,150	\$4,624,797
Bond Proceeds								
Grants								
Capital Project Fund								
Other Revenue								
Total	\$1,494,647	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$3,005,150	\$4,624,797
Operating Impacts:	Prior	2011	2012	2013	2014	2015	Future	Total
Personnel								
Operating								
Capital								
Offsets								
Total								



Capital Improvement Program FY2011 thru FY2015 Project Request Form

Project Title: WESTERN RAW WATERLINE (910161-48621)

Project Priority: Priority 2

Project Code: proj202

Project Type: REPLACEMENT

Start Date (FYE): 1994

Department: 2011

Status: Active

Completion Date (FYE): 2020

Description:

Implementation of specific recommendation as set forth in the engineering document entitled "Supplement - Western Source Raw Water Supply by Wiley & Wilson". Target goal is to install 30" water pipe from Riven Rock Intake to Harrisonburg WTP. This project will assure an optimal use of high quality and least cost water at a capacity to deliver 13.8 MGD. The schedule of implementation is flexible as sections can be added and used at any increment. This pipeline will provide the greatest advantage during times of available water and it will also fulfill to upgrade of the existing 12" (1920's) and 16" (1960's) pipelines.

Explanation:

Construction Progress:
Completed Projects (99, 136, 199, 273, 297, 345, 388) > 20,260 ft
Remaining Projects (TBD) > 33,262 ft = \$9,147,000; \$12,903,000 (3.5,10) = \$11,025,000
Fund Balance: \$777,000
Require New Funding: \$9,755,000

Alternative:

The project can be downsized in pipe diameter to a minimum delivery capacity of 5.5 MGD or the schedule for upgrade can be delayed/altered.

Justifications:

- ☐ Mandated
- ☐ Remove hazards
- ☐ Maintains service
- ☐ Increase efficiency
- ☐ Increase revenues
- ☐ Improves service
- ☐ New service
- ☐ Convenience
- ☐ Other

Expenditures:	Prior	2011	2012	2013	2014	2015	Future	Total
Planning								
Land								
Construction	\$4,722,880	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$9,755,000	\$14,977,880
Equipment								
Other Expenses								
Total	\$4,722,880	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$9,755,000	\$14,977,880
Funding Sources:	Prior	2011	2012	2013	2014	2015	Future	Total
General Revenue								
Enterprise Revenue	\$4,722,880	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$9,755,000	\$14,977,880
Bond Proceeds								
Grants								
Capital Project Fund								
Other Revenue								
Total	\$4,722,880	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$9,755,000	\$14,977,880
Operating Impacts:	Prior	2011	2012	2013	2014	2015	Future	Total
Personnel								
Operating								
Capital								
Offsets								
Total								



Capital Improvement Program FY2011 thru FY2015 Project Request Form

Project Title: EASTERN SOURCE DEVELOPMENT (910161-48654)

Project Priority: Priority 2

Project Code: proj203

Project Type: NEW

Start Date (FYE): 2000

Department: 2011

Status: Active

Completion Date (FYE): 2020

Description:

Surface Water Intake on South fork of Shenandoah River and waterline to the existing water treatment plant as outlined in the Wiley & Wilson "Waterline Route Study-Shenandoah River", November 18, 1999.

Explanation:

Total Project Cost: \$32,000,000
Fund to receive \$2,200,000 from internal project transfer

Alternative:

1. Western source reservoirs
2. Western source groundwater
3. Eastern source groundwater
4. Joint Plan with Rockingham County
5. Limit growth.

Justifications:

- ☐ Mandated
- ☐ Remove hazards
- ☐ Maintains service
- ☐ Increase efficiency
- ☒ Increase revenues
- ☒ Improves service
- ☐ New service
- ☐ Convenience
- ☒ Other

Expenditures:	Prior	2011	2012	2013	2014	2015	Future	Total
Planning								
Land								
Construction	\$10,547,742	\$350,000	\$350,000	\$350,000	\$350,000	\$350,000	\$19,703,000	\$32,000,742
Equipment								
Other Expenses								
Total	\$10,547,742	\$350,000	\$350,000	\$350,000	\$350,000	\$350,000	\$19,703,000	\$32,000,742
Funding Sources:	Prior	2011	2012	2013	2014	2015	Future	Total
General Revenue								
Enterprise Revenue	\$7,308,700	\$350,000	\$350,000	\$350,000	\$350,000	\$350,000		\$9,058,700
Bond Proceeds	\$2,620,000						\$20,322,042	\$22,942,042
Grants								
Capital Project Fund								
Other Revenue								
Total	\$9,928,700	\$350,000	\$350,000	\$350,000	\$350,000	\$350,000	\$20,322,042	\$32,000,742
Operating Impacts:	Prior	2011	2012	2013	2014	2015	Future	Total
Personnel								
Operating							\$41,725,238	\$41,725,238
Capital								
Offsets								
Total							\$41,725,238	\$41,725,238



Capital Improvement Program FY2011 thru FY2015 Project Request Form

Project Title: TANK REHAB FOR POTABLE WATER STORAGE (910161-48627)

Project Priority: Priority 2

Project Code: proj205

Project Type: REPLACEMENT

Start Date (FYE): 2001

Department: 2011

Status: Active

Completion Date (FYE): 2020

Description:

This program targets funding to rehabilitate or replace existing water system potable storage tanks based upon the asset condition, value and lifecycle analysis.

Explanation:

Interior and exterior preparation and painting of the following steel water storage facilities:

- 1) Park View Tank replacement (\$1,200,000)
 - 2) Ridgeville Tank Interior & Exterior Blast & Paint (\$200,000)
 - 3) Cooper's Mt Tank Interior & Exterior Blast & Paint (\$200,000)
 - 4) Walker Tank Exterior Blast & Paint or total tank removal (\$200,000)
- Total \$1,800,000
Currently available in fund: \$490,000
Required new funding: \$1,310,000... \$1,848,000 (3.5,10)= \$1,579,000

Justifications:

- ☐ Mandated
- ☒ Remove hazards
- ☒ Maintains service
- ☒ Increase efficiency
- ☐ Increase revenues
- ☒ Improves service
- ☐ New service
- ☐ Convenience
- ☐ Other

Alternative:

No action until failure occurs.

Expenditures:	Prior	2011	2012	2013	2014	2015	Future	Total
Planning								
Land								
Construction	\$1,211,700	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$1,454,000	\$2,790,700
Equipment								
Other Expenses								
Total	\$1,211,700	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$1,454,000	\$2,790,700
Funding Sources:	Prior	2011	2012	2013	2014	2015	Future	Total
General Revenue								
Enterprise Revenue	\$1,211,700	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$1,454,000	\$2,790,700
Bond Proceeds								
Grants								
Capital Project Fund								
Other Revenue								
Total	\$1,211,700	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$1,454,000	\$2,790,700
Operating Impacts:	Prior	2011	2012	2013	2014	2015	Future	Total
Personnel								
Operating								
Capital								
Offsets								
Total								



Capital Improvement Program FY2011 thru FY2015 Project Request Form

Project Title: REPAIR MAINS AND APPURTENANCES (910161-48635)

Project Priority: Priority 2

Project Code: proj206

Project Type: REPLACEMENT

Start Date (FYE): 2003

Department: 2011

Status: Active

Completion Date (FYE): 2015

Description:

This program targets funding to rehabilitate or replace water system assets using lifecycle evaluation analysis. The purpose is to maintain a vibrant water system by systematically upgrading water mains, valves, hydrants and other appurtenances.

Explanation:

Rehabilitation or replacement is guided by
1) asset condition and lifecycle value
2) status with respect to needed fireflow (NFF) vs. available fireflow (AFF) for ISO rating purposes
3) coordination with other city projects such as roads and bridges

Funds are not shown beyond to five year duration of the CIP plan.

Justifications:

- ☐ Mandated
- ☐ Remove hazards
- ☐ Maintains service
- ☐ Increase efficiency
- ☐ Increase revenues
- ☐ Improves service
- ☐ New service
- ☐ Convenience
- ☐ Other

Alternative:

Pursue upgrade and repair using operating funds and approach at the time of facility failure.

Expenditures:	Prior	2011	2012	2013	2014	2015	Future	Total
Planning								
Land								
Construction	\$1,540,152	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000		\$1,790,152
Equipment								
Other Expenses								
Total	\$1,540,152	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000		\$1,790,152
Funding Sources:	Prior	2011	2012	2013	2014	2015	Future	Total
General Revenue								
Enterprise Revenue	\$1,540,152	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000		\$1,790,152
Bond Proceeds								
Grants								
Capital Project Fund								
Other Revenue								
Total	\$1,540,152	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000		\$1,790,152
Operating Impacts:	Prior	2011	2012	2013	2014	2015	Future	Total
Personnel								
Operating								
Capital								
Offsets								
Total								



Capital Improvement Program
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Project Request Form

Project Title: SECURITY AND SCADA (910161-48668)

Project Priority: Priority 2

Project Code: proj210

Project Type: ADDITION & REPLACEMENT

Start Date (FYE): 2007

Department: 2011

Status: Active

Completion Date (FYE): 2015

Description:

Implement selected strategies identified in the City Water Department Vulnerability Assessment that was conducted to comply with Section 1433(b) of the Safe Drinking Water Act as amended by the Public Health Security and Bioterrorism Act of 2002 (Public Law 107-188, Title IV- Drinking Water Security and Safety). Also maintain state of the art SCADA system.

Explanation:

Selections of implementation items are as follows:

* Security enhancements as itemized per referenced vulnerability assessments

* Conversion of SCADA system from telephone link to radio link

* Replacement of SCADA system DPC 3330 units (discontinued) to control wave units

Funds are not shown beyond the five year duration of the CIP plan.

Justifications:

- ☐ Mandated
☒ Remove hazards
☒ Maintains service
☒ Increase efficiency
☐ Increase revenues
☒ Improves service
☐ New service
☐ Convenience
☐ Other

Alternative:

Retain existing system.

Expenditures:	Prior	2011	2012	2013	2014	2015	Future	Total
Planning								
Land								
Construction								
Equipment	\$125,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000		\$250,000
Other Expenses								
Total	\$125,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000		\$250,000
Funding Sources:	Prior	2011	2012	2013	2014	2015	Future	Total
General Revenue								
Enterprise Revenue	\$125,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000		\$250,000
Bond Proceeds								
Grants								
Capital Project Fund								
Other Revenue								
Total	\$125,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000		\$250,000
Operating Impacts:	Prior	2011	2012	2013	2014	2015	Future	Total
Personnel								
Operating								
Capital								
Offsets								
Total								



Capital Improvement Program FY2011 thru FY2015 Project Request Form

Project Title: Western Potable System (910161-48670)

Project Priority: Priority 2

Project Code: proj213

Project Type: REPLACEMENT

Start Date (FYE): 2009

Department: 2011

Status: Active

Completion Date (FYE): 2020

Description:

The City's rural customer base along Route 33 West is supplied from a 10" diameter cast iron (unlined) pipe that has been installed in the late 1890's. This program begins to address funding for lifecycle replacement of the pipeline.

Explanation:

Total projected cost is not known at this time. The existing 16" raw waterline will be converted to potable status between the WTP and Hinton; then discarding the existing 10" pipe in that area. Beyond Hinton, planning has not been completed. An arbitrary value of \$1,000,000 has been stated as the total cost.

Alternative:

Justifications:

- ☐ Mandated
- ☒ Remove hazards
- ☒ Maintains service
- ☒ Increase efficiency
- ☐ Increase revenues
- ☒ Improves service
- ☐ New service
- ☐ Convenience
- ☐ Other

Expenditures:	Prior	2011	2012	2013	2014	2015	Future	Total
Planning								
Land								
Construction	\$225,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$650,000	\$1,000,000
Equipment								
Other Expenses								
Total	\$225,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$650,000	\$1,000,000
Funding Sources:	Prior	2011	2012	2013	2014	2015	Future	Total
General Revenue								
Enterprise Revenue	\$225,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$650,000	\$1,000,000
Bond Proceeds								
Grants								
Capital Project Fund								
Other Revenue								
Total	\$225,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$650,000	\$1,000,000
Operating Impacts:	Prior	2011	2012	2013	2014	2015	Future	Total
Personnel								
Operating								
Capital								
Offsets								
Total								



Capital Improvement Program FY2011 thru FY2015 Project Request Form

Project Title: Capital Outlay (372061)
Project Priority: Priority 2
Project Code: proj214 **Project Type:** ADDITION & REPLACEMENT **Start Date (FYE):** 2009
Department: 2011 **Status:** Active **Completion Date (FYE):** 2014

Description:

This program targets funding for capital outlay as itemized below; actual distribution to be determined at budget preparation.

Explanation:

48111 Machinery & Equipment	48271 EDP Equipment
48131 Radio Equipment	48273 Software
48181 Buildings & Grounds	48282 Land
48188 Tanks & Pumps	48291 Engineering/Mapping
48221 Furniture	48298 Install Service Lines

Justifications:

- ☐ Mandated
- ☐ Remove hazards
- ☐ Maintains service
- ☒ Increase efficiency
- ☐ Increase revenues
- ☐ Improves service
- ☐ New service
- ☐ Convenience
- ☐ Other

Alternative:

Expenditures:	Prior	2011	2012	2013	2014	2015	Future	Total
Planning								
Land								
Construction								
Equipment		\$225,000	\$225,000	\$225,000	\$225,000	\$225,000		\$1,125,000
Other Expenses								
Total		\$225,000	\$225,000	\$225,000	\$225,000	\$225,000		\$1,125,000
Funding Sources:	Prior	2011	2012	2013	2014	2015	Future	Total
General Revenue								
Enterprise Revenue		\$225,000	\$225,000	\$225,000	\$225,000	\$225,000		\$1,125,000
Bond Proceeds								
Grants								
Capital Project Fund								
Other Revenue								
Total		\$225,000	\$225,000	\$225,000	\$225,000	\$225,000		\$1,125,000
Operating Impacts:	Prior	2011	2012	2013	2014	2015	Future	Total
Personnel								
Operating								
Capital								
Offsets								
Total								